



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

RBEM12669/P-1-03
Job Sheet 171210



Part No: RBEM12669/P-1-03

Job Qty: 4 ea

Part Name: Hoisting Tool Handle



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 1/30/18

Job Tracking No:

Due Date: 2/9/18

Created By: Marie Lajeunesse

Type: Stock

Description:

Note: DWG RBEM12669/P-1-03 REV:4 IPP REV A 18.01.25 NEW ISSUE RQ VERIFIED BY DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	4 Ea		2/8/18	0.00	0.00	Start Up Machining-4		SL 18-2-15
100	CNC Lathe	4 pcs		2/9/18	0.00	1.00	MORI SL-154		SL
110	QC	4 pcs		2/9/18	0.00	0.00	QC2 Machining-5		SL
130	QC	4 pcs		2/9/18	0.00	0.00	QC8 Machining-5		SL 18/02/20
200	Outsource	4 pcs		2/9/18	0.00	0.00	Outsource13		AT 18/03/07
210	Packaging	4 pcs		2/9/18	0.00	0.00	Packaging2		AT 18/03/07
220	QC	4 pcs		2/9/18	0.00	0.00	QC6		38
230	Packaging	4 pcs		2/9/18	0.00	0.00	Packaging3-2		6 9-89
240	QC21-SA	4 Ea		2/9/18	0.00	0.00	QC21		3-89

Part Op 100 - 1-Machine as per folio FB787 FOLIO REV: _____ DWG REV: _____ 2-Deburr

Descriptions: 200 - Issue P/O to Groupe Altech: P/O 036070 -Zinc plate, ASTM B633 TYPE 1 SC2 -Certificate of Conformity is required
210 - Receive 039093
230 - IDENTIFY AND STOCK

W. B. FEB 22 2018

DAS
21
9-89

MAR 12 2018

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
MT-4140QT-R1.250	MT-4140 QT-R1.250	3.1480 ft (.787 ea)	90-Start up Operation	

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	MT-4140QT-R1.250	3	12	0

5039966

485

Part Specifications

Specifications could n



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Container No: S042874



Part: RBEM12669/P-1-03

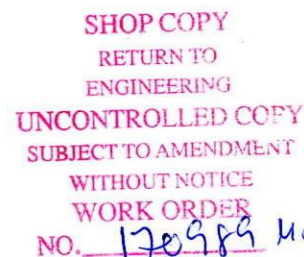
Job No: 171210

Serial No/Batch: S042874

Revision:

Inspector:

REVISIONS						
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED	
1		-03 PIN LENGTHS CHANGED FROM 5.89 TO 5.00 AND 9.704 TO 9.25.	9/24/2010	WP	DW	
4	17-0102	-03 CHD DIM'S WAS .082 IS .08, WAS Ø.736 IS Ø.74, WAS Ø.188 THRU IS Ø.19 THRU ALL, WAS Ø.550 IS Ø.55 W/.75, WAS 2.25 ±.025 IS 2.00 ±.015, DIM. .63 (1-1.5), CHD ENGRAVE NOTE "WAS ENGRAVE TOOL NO. TO FIT IS ENGRAVE P/N, WAS ENGRAVE TOOL NO. "RBEIM1269P"-1 IS ENGRAVE T/N, S/N, "MADE IN USA". CHD FINISH WAS CAD PLATE SILVER MIL-C-81568, TYPE I, CLASS I IS ZINC PLATE ASTM B633 TYPE I SC 2. CHD MATERIAL WAS 4140/4142 Q&T IS 4140/4142 ADDED HEAT TREAT RC 28-34.	4/26/2017	RJC	JAG	



			
TITLE HOISTING TOOL ASSEMBLY			
DWG NO. RBEM12669/P-1-03			REV 4
MAT'L 4140/4142 HEAT TREAT RC 28-34 FINISH ZINC PLATE		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ± 5° .X ± .1 SURFACES = 125/√	
SPEC ASTM B633 TYPE I SC 2		1. BREAK ALL SHARP EDGES .015 X 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING 3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009	
DRAWN BY:	RJC 04/26/2017	USED ON MODEL	
CHECKED:	DD 04/26/2017	EUROCOPTER EC135	
OPPTS APPR:	AA 05/05/2017		
QA APPR:	JL 05/10/2017		
APPROVED:	JAG 05/16/2017		
SCALE 1:2	DATE 4/26/2017	SHEET 3 OF 4	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐		Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐					
OTHER : ☐									

Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



Work Order update only ☐

Work Order: _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS					
Part No. RBEM12669/P-1-03		Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐		
NCR No.		Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐		
		Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐		
		Large Fab ☐	Composite ☐	Supplier ☐			

Step #: _____	QTY Effective : _____	MRB (QSI042) Approval <i>M. Lee</i> Feb 09, 2018
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Description Work Order Deviation	Disposition	Completed By
The dimensions for RBEM12669/P-1-03 Pin are incorrect per customer feedback on the Rev 4 drawing. The 5.00 dimension should be 7.25 The 9.25 dimension should be 11.00	- This deviation is acceptable. - The drawings will be updated to reflect these changes. - The fit, form and function of the tool will be as originally intended.	Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval

Root Cause			FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	
Design ☒	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	
Equipment/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	
Material Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	
Material Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	
Expiry Date ☐	Manufacturing Process ☐					
Misidentified ☐	Past Due ☐	OTHER : _____				

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QS1042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								



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PURCHASE ORDER

PO039090

Items										
Line Item	Job	Part	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
			-Certificate of Conformity is required							
Line Item Note parts made from 4140										
10	170702	RBT18560-5	Screw -Issue P/O to Groupe Altech; PO -Black oxide finish, MIL-C-13924C Class 1 -Certificate of Conformity is required	Firmed	3/1/18	6 pcs	0 pcs	6 pcs	\$5.00/pcs	\$30.00
Line Item Note parts made from Grade B7 Medium-strength Steel										
11	171373	RBT18582	T/R G/B Torque Adapter -Issue P/O to Groupe Altech: P/O -Zinc plate, ASTM B633 TYPE 1 SC2 -Certificate of Conformity is required	Firmed	3/1/18	6 pcs	0 pcs	6 pcs	\$9.00/pcs	\$54.00
Line Item Note parts made from AISI 4140 Quenched & Tempered Steel Round Bar										
12	171967	C45-4-5	Loadbeam Spacer -Issue P/O to Groupe Altech: P/O -Nickel plate, QQ-N-290, Class 2, Grade E or F -Nickel Plate .0004-.0006 -Certificate of Conformity is required	Firmed	3/1/18	20 pcs	0 pcs	20 pcs	\$8.75/pcs	\$175.00
Grand Total:									\$936.66	

Order Notes

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 2/22/18 2:02 PM dart.baker@dartaerospace.com



Certificat de Conformité / Certificate of Compliance

(007034-1)

2455, Rue Halpern | Saint-Laurent | Québec | H4S 1N9
 Tel: 514-335-3666 Fax: 514-335-3868
 www.groupaltech.com

Bon de Livraison / Packing Slip

007034 - 1

Livré à / Ship to

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 Tel.: 613-632-5200 Fax.:

Client / Customer:

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 BUYER:

Date expédition Ship date		Créé Par Generated By	Transport / No de Compte Courier / Acc. No.	Bon de commande Client Customer Purchase Order No.				
02-Mar-2018		Aman Kaur		PO039090				
#Ligne Line#	No. de Série / # Pièce Part Number /Line Item Details Job # / Ref #	Description pièce(s)	CATG. U/M	Comm. /Ordered	Exp/ Shipped	Quantités / Quantities Qté NC/ NC Qty	Qté Scrap/	À venir/ Back Order
9	RBEM12669/P-1-03 Rev.	RBEM12669/P-1-03 ZINC PLATE, ASTM B633 TYPE 15C2	ZINC CH	4	4	0	0	0
12	C45-4-5 Rev.	C45-4-5 01 -E-NIC STEEL 500 [E-NICKEL STEEL 500] NICKLE PLATE QQ-N-290, CLASS 2, GRADE E OR F, NICKLE PLATE .0004-.0006	E-NICKEL STEEL CH	20	20	0	0	0

Notes Additionnelles / Additional Notes

Epaisseur réelle
Actual Thickness

Inspecteur Qualité
Quality Inspector

Réçu par
Received By

Nous certifions que les pièces énumérées ci-dessus ont été traitées en conformité avec votre commande et vos spécifications et rencontrent les exigences.
 Notre responsabilité financière et légale ne sera pas supérieure au montant de la facture issue.

We hereby certify that the parts listed above have been process in accordance with your purchase order and specifications and are in conformance with your requirements.
 Our financial and legal responsibility will not be higher than the amount of invoice.